

**AMENDMENTS TO THE SPECIFICATION**

Please replace the paragraph on the Specification Cover Sheet with the following amended paragraph:

TO ALL WHOM IT MAY CONCERN:

I, Mark J. Pavicic, a resident of Fargo, North Dakota, and a Citizen of the United States of America, ~~has~~ have invented certain new and useful improvements in a

**SYSTEM FOR DIGITIZING TRANSIENT SIGNALS**

of which the following is a specification.

Please replace paragraph [019] with the following amended paragraph:

**[019]** Design of a digitizer can start with any of the components involved in the trade offs. A digital signal processor (DSP) can be useful to perform not only rapid processing of the digitized data that is the result of A to D conversions but also to provide intelligent control over one or more functions or parameters leading to output of the digitized data. In particular, a DSP can be made with CMOS or bi-CMOS technology and ~~that~~ capacitor arrays of the kind that have been used to capture analog samples at high sampling rates can also be realized in CMOS or bi-CMOS. Thus, with CMOS or bi-CMOS (or any other chip-making methodology that permits realization of the essential components on a common substrate), it becomes possible to design a chip in which the DSP and the analog sample storage might be closely coordinated

Please replace paragraph [086] with the following amended paragraph:

**[086]** The ability ~~of the~~ of the present device to sample waveforms at a high rate and deliver highly precise digital data can, as noted, be used in fluorometers to capture fluorescence decay

curves; however it provides benefits to a number of other applications. It may benefit anyone who wants to extract fine features from short pulses at low cost or power. It may especially benefit those who need to monitor changes (seen in the fine features of the samples waveforms) that occur in the millisecond time frame.